Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

> Permittee Name: Mr. Charles J. Packard

> > President

Facility Name: Combined Heat & Power, Incorporated

Facility Location: Rockville Plant

2361 Lanier Road, Goochland County, VA

Registration Number:

Permit Number:

51201

PRO-51201

April 22, 2004 Effective Date

April 22, 2009 **Expiration Date**

Robert G. Burnley Director, Department of Environmental Quality

April 22, 2004 Signature Date

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I. Facility Information

Permittee

Combined Heat & Power, Incorporated Rockville Plant 2250 Dabney Rd. Richmond, VA 23230

Facility

Combined Heat & Power, Incorporated Rockville Plant 2361 Lanier Road, Goochland County, VA

Responsible Official

Mr. Charles J. Packard President

Contact person

Mr. Robert L. Greene, Ph.D Environmental Compliance Manager (804) 521-3557 FAX 3583

AIRS Identification Number: 51-075-000030

Facility Description: SIC Code 4931 – The facility is a 12 MW power generation facility. This is one of several facilities in this region, which is run by the operating company, INGENCO. This facility is located in an area in attainment for all pollutants at the time of public notice. The facility is major for NOx and CO.

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II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
E1-E16	S-1 S-2 S-3 S-4 S-5 S-6 S-7 S-8	350 kW Generators (16 in Group R-1) 350 kW Generators (24 in Group R-2)	Each engine is rated at 3.2 MMBtu/hour heat input, Detroit Diesel Model 6063-GK 60. Same.	NA - air-to-fuel ratio control, turbo-charging, custom-built dry after-coolers and charge-air cooling systems Same.	NA NA	NOx, CO, SOx, VOC, PM, PM10, PCBs Same.	02/03/2004 Same.

III. Process Equipment Requirements – E-1 through E-40

A. Limitations

- Emissi on Controls Nitrogen Dioxide emissions from the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) shall be controlled by custom-built dry after-coolers and good combustion practices. The forty Detroit Diesel Model 6063-GK 60 internal combustion engines shall be provided with adequate access for inspection. (9 VAC 5-50-260 and Condition No. 3 of the NSR permit dated 2/3/2004)
- 2. **Emission Controls** Emission Controls Sulfur Dioxide emissions from the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) shall be controlled by the use of low-sulfur fuel.(9 VAC 5-50-260 and Condition No. 4 of the NSR permit dated 2/3/2004)
- 3. Emission Controls Carbon Monoxide, particulate matter and volatile organic compound emissions from the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) shall be controlled by proper engine maintenance practices. The engines shall be repaired and maintained to prevent excess emissions of carbon monoxide, particulate matter and volatile organic compounds. Any change to the combustion control processes associated with the forty Detroit Diesel Model 6063-GK 60 internal combustion engines may require a permit to modify and operate. (9 VAC 5-50-260 and Condition No. 5 of the NSR permit dated 2/3/2004)
- 4. **Emission Controls** The charge air temperature measured at the inlet to the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) shall not exceed an hourly average of 150EF. (9 VAC 5-50-260 and Condition No. 6 of the NSR permit dated 2/3/2004)
- 5. **Stack Height** The R1group (E1-16) and R2 group (E17-40) Detroit Diesel Model 6063-GK 60 internal combustion engine stacks shall be a minimum of 40 feet and 26 feet above ground level, respectively. The stacks shall not be lowered for any reason without prior written approval of the Director, Piedmont Region.

(9 VAC 5-80-1120 C, 9 VAC 5-80-1180 and Condition No. 9 of the NSR permit dated 2/3/2004)

- Fuel The approved fuels for the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) are distillate fuel oil, No. 4 fuel oil and mineral oil dielectric fluid (MODEF). A change in the fuel may require a permit to modify and operate.
 (9 VAC 5-80-1180 and Condition No. 10 of the NSR permit dated 2/3/2004)
- 7. **Fuel** The fuel shall meet the specifications below:

DISTILLATE OIL which meets the ASTM [D396] specifications for number 2 fuel oil, RESIDUAL OIL which meets the ASTM [D396] specifications for number 4 fuel oil, and MODEF:

Sulfur content:

Maximum sulfur content per shipment: 0.5% by weight

Average annual sulfur content, calculated monthly as the sum of each consecutive 12-month period: 0.2% by weight

Heat content:

DISTILLATE OIL: 137,000 BTU/gallon RESIDUAL OIL: 144,000 BTU/gallon MODEF: 145,000 BTU/gallon

(9 VAC 5-80-1180 and Condition No. 11 of the NSR permit dated 2/3/2004)

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8. **Fuel Specification** - Contaminants contained in the MODEF burned in the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) shall not exceed the limits specified below:

PCB content: 49 ppm by weight Lead content: 25 ppm by weight Flash Point: 100 EF, minimum

(9 VAC 5-80-1180 and Condition No. 12 of the NSR permit dated 2/3/2004)

9. **BTU Throughput** - The Total Heat Input (HI_{TOTAL}) to the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) shall not exceed 208,696 MMBtu/yr, calculated monthly as the sum of each consecutive 12-month period.

(9 VAC 5-80-1180 and Condition No. 13 of the NSR permit dated 2/3/2004)

10. Heat Input Calculation - The Total Heat Input (HI_{TOTAL)} to the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) shall be calculated on a monthly basis using the following equation:

$$HI_{\text{TOTAL (MMBtu)}} = \frac{(Gal_{\text{MODEF}} \times HV_{\text{MODEF}}) + (Gal_{\text{No.2}} \times HV_{\text{No2}}) + (Gal_{\text{No.4}} \times HV_{\text{No.4}})}{1,000,000 \text{ Btu/MMBtu}}$$

Where Gal_X is the monthly throughput in gallons for fuel type X and HV_X is the Heating Value for that fuel type found in Condition 7.

(9 VAC 5-80-1180 and Condition No. 14 of the NSR permit dated 2/3/2004)

- 11. **Fuel Certification -** The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil or residual oil. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier;
 - b. The date on which the oil was received;
 - c. The volume of oil delivered in the shipment;
 - d. A statement that the distillate oil complies with the American Society for Testing and Materials specifications [D396-78] for number 2 fuel oil or number 4 fuel oil, respectively, and
 - e. The sulfur content of the oil,

(9 VAC 5-170-160 and Condition No. 15 of the NSR permit dated 2/3/2004)

12. Fuel Sampling - The permittee shall analyze a composite sample of the MODEF monthly to verify the limits in Conditions 7 and 8. The permittee shall maintain records of all oil analyses and of all oil shipments purchased. These records shall be available for inspection by the DEQ. Such records shall be current for the most recent five years.

(9 VAC 5-170-160 and Condition No. 16 of the NSR permit dated 2/3/2004)

13. **Emission Calculations -** Emissions from the operation of the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) shall be calculated using the formulas below:

For PM/PM10, NOx, CO and VOC -

Pollutant Emissions (tons/yr) =
$$\frac{\text{HI}_{\text{TOTAL}}(\text{MMBtu/yr}) \times \text{Pollutant Emission Factor (lbs/MMBtu)}}{2000 \text{lbs/ton}}$$

Where HI_{TOTAL} is calculated according to Condition 14 and the Emission Factor is taken from Condition 14.

For SO2 -

SO₂ Emissions (tons/yr) =
$$\frac{1.01 \text{ lbs/MMBtu } \times \text{ % Sulfur in fuel } \times \text{ HI}_{\text{TOTAL}}}{2000 \text{ lbs/ton}}$$

Where HI_{TOTAL} is calculated according to Condition 10 and the % sulfur in the fuel is the average annual value as derived from fuel certification forms as required by Condition 11 (for distillate and residual oil) or analyses as required by Condition 12 (for MODEF). (9 VAC 5-50-260, 9 VAC 5-50-180 and Condition No. 17 of the NSR permit dated 2/3/2004)

14. **Emission Limits** - Emissions from the operation of each of the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) shall not exceed the limits specified below:

Particulate Matter	0.1	lb/MMBtu
PM-10	0.1	lb/MMBtu
Sulfur Dioxide	0.5	lb/MMBtu
Nitrogen Dioxide	2.3	lb/MMBtu
Carbon Monoxide	0.25	lb/MMBtu
Volatile Organic Compounds	0.1	lb/MMBtu

Compliance with the lb/MMBtu limits for PM, PM-10, NOx, CO and VOC shall be determined by stack testing. All other emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 1,2,3, 7, 8, 15, and 16.

(9 VAC 5-50-260 and 9 VAC 5-50-180 and Condition No. 18 of the NSR permit dated 2/3/2004)

B. Monitoring

15. **Monitoring Devices** – The forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) shall be equipped with devices to continuously measure the charge air temperature at the air inlet to the engine. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the engines are operating. A change in the location of the temperature indicator may require a permit to modify and operate.

(9 VAC 5-80-1180, 9 VAC 5-50-20, 9 VAC 5-50-260 and Condition No. 7 of the NSR permit dated 2/3/2004)

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16. **Monitoring Device Observation** – The monitoring devices used to continuously measure the inlet charge air temperature of the engines shall be observed by the permittee with a frequency of not less than hourly. The permittee shall keep a log of the observations from the monitoring device. (9 VAC 5-50-50 F and Condition No. 8 of the NSR permit dated 2/3/2004)

C. Recordkeeping

- 17. **On Site Records -** The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:
 - a. Monthly and annual fuel throughputs, in gallons.
 - b. Monthly and annual heat input to the engines in MMBtu.
 - Monthly and annual pollutant emissions records calculated monthly using the heating values in Condition 7. Sulfur dioxide emissions shall be calculated using the emission factors in Condition 14, or emission factors approved by the Piedmont Regional Office.
 - d. Hourly inlet charge air temperature indicator readings from each operating engine.
 - e. Training records for employees responsible for operating the Detroit Diesel Model 6063-GK 60 internal combustion engines.
 - f. All fuel supplier certifications and fuel analyses records.
 - g. Operating procedures, maintenance schedules, and service records for all Detroit Diesel Model 6063-GK60 internal combustion engines, as well as temperature gauges measuring charge air inlet temperatures.
 - h. Records for scheduled and unscheduled maintenance for all process equipment and temperature monitoring devices, including annual certifications of accuracy for those devices.
 - i. Results of all stack tests, visible emissions evaluations and performance evaluations.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-50-50 and Condition No. 25 of the NSR permit dated 2/3/2004)

D. Testing

- 18. Stack Test - An initial performance test shall be conducted for Nitrogen Dioxide and Carbon Monoxide from the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) within 60 days of the Piedmont Regional Office receiving notice of the combustion of #4 residual oil to determine compliance with the emission limits contained in Conditions 14 and 28. The test shall be performed while operating using 100% residual oil. The test shall be performed at no less than 90% of the rated capacity of the electrical output, on a minimum of one set of four engines. The test shall be performed, and demonstrate compliance within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. The test shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the test are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit. (9 VAC 5-50-20, 9 VAC 5-50-30, 9 VAC 5-50-410, VAC 5-80-1200 and Condition No. 21 of the NSR permit dated 2/3/2004)
- 19. **Stack Test -** Upon request by the DEQ, the permittee shall conduct additional performance tests for Nitrogen Dioxide from the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) to demonstrate compliance with the emission limits contained in this permit. The details of the tests shall be arranged with the Director, Piedmont Region.

 (9 VAC 5-50-30 G and Condition No. 23 of the NSR permit dated 2/3/2004)

- Visible Emissions Evaluation Concurrently with the initial performance tests, Visible Emission Evaluations (VEE) in accordance with 40 CFR Part 60, Appendix A, Method 9, shall also be conducted. Each test shall consist of 30 sets of 24 consecutive observations (at 15 second intervals) to yield a six minute average. The details of the tests are to be arranged with the Director, Piedmont Region. The permittee shall submit a test protocol at least 30 days prior to testing. The evaluation shall be performed within 60 days after achieving the maximum production rate at which the facility will be operated but in no event later than 180 days after start-up of the permitted facility. Should conditions prevent concurrent opacity observations, the Piedmont Regional Office shall be notified in writing, within seven days, and visible emissions testing shall be rescheduled within 30 days. Rescheduled testing shall be conducted under the same conditions (as possible) as the initial performance tests. One copy of the test results shall be submitted to the Director, Piedmont Region within 60 days of start-up and shall conform to the test report format enclosed with this permit. (9 VAC 5-50-30 G, 9 VAC 5-80-1200 and Condition No. 22 of the NSR permit dated 2/3/2004)
- 21. Visible Emissions Evaluation Upon request by the DEQ, the permittee shall conduct additional visible emission evaluations from the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) to demonstrate compliance with the visible emission limits contained in this permit. The details of the tests shall be arranged with the Director, Piedmont Region. (9 VAC 5-50-30 G and Condition No. 24 of the NSR permit dated 2/3/2004)
- 22. **Test/Monitoring Ports** The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods. This includes constructing the facility such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and providing stack or duct that is free from cyclonic flow. Test ports shall be provided when requested.
 - (9 VAC 5-50-30 F and Condition No. 26 of the NSR permit dated 2/3/2004)
- 23. **Test Method -** If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC/ NMOC	EPA Method 18 or 25A/25C
NOx	EPA Method 7E
SO2	EPA Method 6C
СО	EPA Method 10
PM/PM10	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

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24. Initial Notification - The permittee shall furnish written notification to the Director, Piedmont Region of the actual date on which modification of the sixteen Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-16) commenced within 30 days after such date.
(9 VAC 5-50-50 and Condition No. 27 of the NSR permit dated 2/3/2004)

- 25. **Initial Notification -** The permittee shall furnish notification to the Director, Piedmont Region of the intention to shut down or bypass, or both, air pollution control equipment for necessary scheduled maintenance, which results in excess emissions for more than one hour, at least 24 hours prior to the shutdown. The notification shall include, but is not limited to, the following information:
 - a. Identification of the air pollution control equipment to be taken out of service, as well as its location, and registration number;
 - b. The expected length of time that the air pollution control equipment will be out of service;
 - c. The nature and quantity of emissions of air pollutants likely to occur during the shutdown period
 - d. Measures that will be taken to minimize the length of the shutdown or to negate the effect of the outage.

(9 VAC 5-20-180 B and Condition No. 28 of the NSR permit dated 2/3/2004)

- 26. **Notification for Facility or Control Equipment Malfunction -** The permittee shall furnish notification to the Director, Piedmont Region of malfunctions of the affected facility or related air pollution control equipment that may cause excess emissions for more than one hour, by facsimile transmission, telephone or telegraph. Such notification shall be made as soon as practicable but not later than four daytime business hours of the malfunction. The permittee shall provide a written statement giving all pertinent facts, including the estimated duration of the breakdown, within 14 days of the occurrence. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the permittee shall notify Director, Piedmont Region in writing. (9 VAC 5-20-180 C and Condition No. 29 of the NSR permit dated 2/3/2004)
- 27. **Permit Invalidation** This permit to modify the sixteen Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-16) shall become invalid, unless an extension is granted by the DEQ, if:
 - a. A program of continuous modification is not commenced before the latest of the following:
 - (1) 18 months from the date of this permit;
 - (2) Nine months from the date that the last permit or other authorization was issued from any other governmental agency;
 - (3) Nine months from the date of the last resolution of any litigation concerning any such permits or authorization; or
 - b. A program of modification is discontinued for a period of 18 months or more, or is not completed within a reasonable time, except for a DEQ approved period between phases of a phased construction project.

(9 VAC 5-80-1210 and Condition No. 30 of the NSR permit dated 2/3/2004)

IV. Facility Wide Conditions

A. Limitations

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28. **Visible Emission Limit** - Visible emissions from the forty Detroit Diesel Model 6063-GK 60 internal combustion engines (E1-40) stacks shall not exceed 10.0% opacity as determined by EPA Method 9 (reference 40 CFR Part 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.

(9 VAC 5-50-80, 9 VAC 5-50-260 and Condition No. 20 of the NSR permit dated 2/3/2004)

29. **Plantwide Emission Limits -** Total emissions from the facility shall not exceed the limits specified below:

Particulate Matter	13.0	lbs/hr	11.0	tons/yr
PM-10	13.0	lbs/hr	11.0	tons/yr
Sulfur Dioxide	65.0	lbs/hr	22.0	tons/yr
Nitrogen Dioxide	295.0	lbs/hr	240.0	tons/yr
Carbon Monoxide	32.0	lbs/hr	27.0	tons/yr
Volatile Organic Compounds	13.0	lbs/hr	11.0	tons/yr
Polychlorinated biphenyls (Aroclors)	0.4	lbs/hr	0.3	tons/yr
Lead	0.2	lbs/hr	0.2	tons/yr

Compliance with the lb/hr limits for PM, PM10, NOx, CO and VOC may be determined by additional stack testing or other appropriate means upon request of the Department. All other emission limits are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of the emission limits. Compliance with these emission limits may be determined as stated in Condition numbers 1, 2, 3, 5, 6, 7, 9, 10, 15 and 16.

(9 VAC 5-50-260 and 9 VAC 5-50-180 and Condition No. 19 of the NSR permit dated 2/3/2004)

V. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (5-80-720 B)	Rated Capacity (5-80-720 C)
T41	Fuel oil storage tank	5-80-720 B.	VOC	15,000 Gallon
T42	Fuel oil storage tank	5-80-720 B.	VOC	15,000 Gallon
T43	Fuel oil storage tank	5-80-720 B.	VOC	10,000 Gallon
T44	Fuel oil storage tank	5-80-720 B.	VOC	13,500 Gallon
T45	Fuel oil storage tank	5-80-720 B.	VOC	13,500 Gallon
T46	Fuel oil storage tank	5-80-720 B.	VOC	20,000 Gallon
T47	Fuel oil storage tank	5-80-720 B.	VOC	20,000 Gallon
T48	Fuel oil storage tank	5-80-720 B.	VOC	20,700 Gallon
T49	Fuel oil storage tank	5-80-720 B.	VOC	20,700 Gallon
T50	Fuel oil storage tank	5-80-720 B.	VOC	20,700 Gallon
T51	Fuel oil storage tank	5-80-720 B.	VOC	20,700 Gallon

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T52	Fuel oil storage tank	5-80-720 B.	VOC	20,700 Gallon
T53	Fuel oil storage tank	5-80-720 B.	VOC	20,700 Gallon
T54	Fuel oil storage tank	5-80-720 B.	VOC	31,000 Gallon
T55	Fuel oil storage tank	5-80-720 B.	VOC	31,000 Gallon
T56	Fuel oil storage tank	5-80-720 B.	VOC	31,000 Gallon

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

VI. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of applicability
No inapplicable requirements identified.	-	-

Nothing in this permit shield shall alter the provisions of § 303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to § 114 of the federal Clean Air Act, (ii) the Board pursuant to § 10.1-1314 or § 10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to § 10.1-1307.3 of the Virginia Air Pollution Control Law.

(9 VAC 5-80-140)

VII. Future Applicable Requirements

None noted.

VII. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable. (9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless a timely and complete renewal application consistent with 9 VAC 5-80-80 has been submitted to the Department by the owner, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

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2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

- 3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
- 4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
- 5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

 (9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

- 1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
 - a. The date, place as defined in the permit, and time of sampling or measurements.
 - b. The date(s) analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses.
 - f. The operating conditions existing at the time of sampling or measurement. (9 VAC 5-80-110 F) $\,$
- Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
 (9 VAC 5-80-110 F)
- 3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than <u>March 1</u> and <u>September 1</u> of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:
 - a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

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All deviations from permit requirements. For purposes of this permit, a ?deviation? means any condition determined by observation, data from any monitoring protocol or any other monitoring which is required by the permit that can be used to determine compliance. Deviations include exceedances documented by continuous emission monitoring or excursions from control performance indicators documented through periodic or compliance assurance monitoring.
 (9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to § 114(a)(3) and § 504(b) of the Federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- 1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
- 2. A description of the means for assessing or monitoring the compliance of the source with its emissions limitations, standards, and work practices.
- 3. The identification of each term or condition of the permit that is the basis of the certification.
- 4. The compliance status.
- 5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the certification period.
- 6. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
- 7. The status of compliance with the terms and conditions of this permit for the certification period.
- 8. Such other facts as the permit may require to determine the compliance status of the source. One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00) U.S. Environmental Protection Agency, Region III 1650 Arch Street Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, Piedmont Region within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour,

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including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition IX.C.3. of this permit.

(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours, notify the Director, Piedmont Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Piedmont Region. (9 VAC 5-20-180 C)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit. (9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (9 VAC 5-80-110 G.3)

J. Permit Action for Cause

This permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in 9 VAC 5-80-110 L, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit

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modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. (9 VAC 5-80-110 G.4)

Such changes that may require a permit modification and/or revisions include, but are not limited to, the following:

- a. Erection, fabrication, installation, addition, or modification of an emissions unit (which is the source, or part of it, which emits or has the potential to emit any regulated air pollutant), or of a source, where there is, or there is the potential of, a resulting emissions increase;
- b. Reconstruction or replacement of any emissions unit or components thereof such that its capital cost exceeds 50% of the cost of a whole new unit;
- c. Any change at a source which causes emission of a pollutant not previously emitted, an increase in emissions, production, throughput, hours of operation, or fuel use greater than those allowed by the permit, or by 9 VAC 5-80-11, unless such an increase is authorized by an emission cap; or any change at a source which causes an increase in emissions resulting from a reduction in control efficiency, unless such an increase is authorized by an emissions cap;
- Any reduction of the height of a stack or of a point of emissions, or the addition of any obstruction which hinders the vertical motion of exhaust;
- e. Any change at the source which affects its compliance with conditions in this permit, including conditions relating to monitoring, recordkeeping, and reporting;
- f. Addition of an emissions unit which qualifies as insignificant by emissions rate (9 VAC 5-80-720 B) or by size or production rate (9 VAC 5-80-720 C);
- g. Any change in insignificant activities, as defined by 9 VAC 5-80-90 D.1.a(1) and by 9 VAC 5-80-720 B and 9 VAC 5-80-720 C.

(9 VAC 5-80-110 G, 9 VAC 5-80-110 J, 9 VAC 5-80-240, and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

L. Duty to Submit Information

The permittee shall furnish to the board, within a reasonable time, any information that the board may
request in writing to determine whether cause exists for modifying, revoking and reissuing, or
terminating the permit or to determine compliance with the permit. Upon request, the permittee shall
also furnish to the board copies of records required to be kept by the permit and, for information claimed
to be confidential, the permittee shall furnish such records to the board along with a claim of
confidentiality.

(9 VAC 5-80-110 G.6)

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2. Any document (including reports) required in a permit condition to be submitted to the board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G. (9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355. (9 VAC 5-80-110 H)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited, to the following:

- 1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
- Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
- 3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
- 4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and
- 5. The prompt removal of spilled or traced dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-50)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. (9 VAC 5-50-20)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80 Article 1. (9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

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The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

- 1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
- 2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- 3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the board if additional federal requirements become applicable to a major source with a remaining permit term of three or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

- 1. The permit shall be reopened if the board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
- 2. The permit shall be reopened if the administrator or the board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
- The permit shall not be reopened by the board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.
 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

T. Transfer of Permits

 No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another. (9 VAC 5-80-160)

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2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200. (9 VAC 5-80-160)

In the case of a name change of a stationary source, the owner shall comply with any current permit
issued under the previous source name. The owner shall notify the board of the change in source name
within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
 (9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

- 1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.
- 2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
 - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
 - d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
- 3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.
- The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.
 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The board may suspend, under such conditions and for such period of time as the board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

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Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substance subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F. (40 CFR Part 82, Subparts A - F)

Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68. (40 CFR Part 68)

Z. Changes to Permits for Emissions Trading

No permit revision shall be required, under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

AA. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

- 1. All terms and conditions required under 9 VAC 5-80-110 except subsection N shall be included to determine compliance.
- 2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
- 3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

То:	Air Compliance Manager Department of Environmental Quality – Piedmont Regional Office 4949-A Cox Road Glen Allen, VA 23060				
From:	(Facility Name)				
	Registration No				
Re:	TITLE V ANNUAL COMPLIANCE	CERTIFICATION			
Date:					
	It identifies each term or condition	nual Compliance Certification for the period from/ to on of the permit that is the basis of the certification. All deviations and ddressed in semi-annual monitoring reports that have either been			
supervision in information su responsible fo true, accurate,	n accordance with a system designed to a ubmitted. Based on my inquiry of the people or gathering and evaluating the informati	document and all attachments were prepared under my direction or assure that qualified personnel properly gather and evaluate the erson or persons who mange the system, or those persons directly on, the information submitted is, to the best of my knowledge and belief, a significant penalties for submitting false information, including the ations.			
	(Signature)	(Name & Title)			
United S	Air and Waste Division (Mail drop 3APC States Environmental Protection Agency ch Street				

(Annual Compliance Certifications are due 60 days following end of reporting period.)

	4949-A Cox Road Glen Allen, VA 2		
From:	(Facility Name)		Reg. No
Re:	- ·	EPORT – Pursuant to Title V Pe	
Date:			
			o'clock on/ The details
			ore than one hour, consistent with specified
averaging times	None of these deviations we	ere related to a malfunction.	
Start date & tim	e:	End date & time:	Estimated Duration:
Deviation from v	which permit condition (cond	 lition number and brief descript	ion):
Description of in	ncident (including emission	unit affected):	
Description of M	Ionitoring Requirement for	affected unit(s):	
Probable cause:			
Description of c	orrective measures taken (d	emonstrating a timely & approp	riate response):
Description of p	reventive measures taken:		
Certification: I	certify under penalty of law	that this document and all attach	nents were prepared under my direction or
			sonnel properly gather and evaluate the
			ange the system, or those persons directly
-			mitted is, to the best of my knowledge and belief, submitting false information, including the
	e and imprisonment for know		., 6
	(S:)		
	(Signature) (Name & Title)		

Department of Environmental Quality - Piedmont Regional Office

Air Compliance Manager

To:

То:	Air Compliance Manager Department of Environmental Quality – Piedmont Regional Office 4949-A Cox Road				
	Glen Allen, VA 23060				
From:		Vo			
Re:	SEMI-ANNUAL MONITORING REPORT – Pursuant to Title V Permit				
Date:					
(1) exemonite requirestric record to the reading	owing monitoring report is submitted as required by our Title V permit. For the purposes of this redances of emission limits, as determined by such means as stack testing, continuous emission may and EPA Method 9 visible emission evaluations; (2) excursions from control device operating tents such as afterburner temperature, scrubber flow rate, baghouse pressure drop; (3) excursions things such as throughput, fuel quality, and coating VOC and HAP content; and (4) failure to eeping or reporting requirements. The report addresses all data points, which are above a standard eraging period, if any, specified in the permit. If no averaging period is specified in the permit, the considered a deviation to be reported. Deviations are reported regardless of whether they may so whether they were the result of a malfunction.	nonitors, parametric g parameter s from operational o meet monitoring, ard, limit etc, according then any monitored			
The po	od covered by the report is from/ to/				
Durin	he reporting period:				
	No deviations from permit requirements occurred during this semi-annual reporting period. (We conducted all required monitoring and associated record keeping and reporting. Required monitoring revealed no deviations from permit requirements.)				
	Ve failed to conduct required monitoring/record keeping/reporting as explained on the attached for	orm.			
	Deviations were addressed in CEM Excess Emission Report(s) dated: Deviations were addressed in Fuel Report(s) dated: Deviations were addressed in MACT Report(s) dated: Deviations were addressed in MACT Report(s) dated: Deviations due to malfunctions were addressed in letters dated: Deviations were addressed in other report(s) dated: Type of report: Deviations were previously described in Prompt Deviation Reports dated: "Other" deviations, which were not previously reported, are described in the attachment.				
superv inforn respor true, a	ation: I certify under penalty of law that this document and all attachments were prepared under ration in accordance with a system designed to assure that qualified personnel properly gather and ion submitted. Based on my inquiry of the person or persons who mange the system, or those puble for gathering and evaluating the information, the information submitted is, to the best of my burate, and complete. I am aware that there are significant penalties for submitting false information ty of fine and imprisonment for knowing violations.	d evaluate the persons directly knowledge and belief,			

FAILURE TO MONITOR, KEEP RECORDS OR REPORT Submitted as Part of Semi-Annual Monitoring Report

Registration No	Page o	f
	0	

Permit Condition No. & DESCRIPTION OF REQUIREMENT	DESCRIPTION OF DEVIATION (including date)	REASON FOR DEVIATION & CO

Annual	Compliance	Certification
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Cond. No.	TERMS & CONDITIONS CONTAINED IN THE PERMIT (list in order)	MEANS OF DETERMINING COMPLIANCE STATUS	TYPE OF DATA THE MEANS PROVIDES	PERIODS OF NON- COMPLIANCE
			☐ Continuous ☐ Intermittent	☐ Yes ☐ No
			☐ Continuous ☐ Intermittent	☐ Yes ☐ No
			☐ Continuous ☐ Intermittent	☐ Yes ☐ No
			☐ Continuous ☐ Intermittent	☐ Yes ☐ No
			☐ Continuous ☐ Intermittent	☐ Yes ☐ No
			☐ Continuous ☐ Intermittent	☐ Yes ☐ No
			☐ Continuous ☐ Intermittent	☐ Yes ☐ No
			☐ Continuous ☐ Intermittent	☐ Yes ☐ No

Form approved for use 9/18/00

"OTHER" DEVIATIONS
Submitted as Part of Semi-Annual Monitoring Report

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Condition No. & Description of Requirement	Description of Deviation (time, emission unit, description of event, cause)	Description of Associated Monitoring Requirement	Description of corrective measures taken (demonstrating a timely & appropriate response)

(Report deviations which may have caused excess emissions for more than one hour on a deviation report form, not here.